ANGLER GUIDE

The watershed is well known for the varied fishing opportunity it offers - from stream fishing for smallmouth bass, rock bass, trout, and suckers, to reservoir fishing for largemouth and spotted bass, crappie, paddlefish, catfish, white bass, and walleye. In 1988, more than twice as many angler-days were spent fishing LOZ than the second most popular large reservoir in the state (Weithman, 1991).

Bennett Spring Trout Park

Year-round 55 degrees F. water from Bennett Spring provides habitat for trout in 1.5 miles of Bennett Spring Branch and in approximately 12 miles of the NR downstream of Bennett Spring Branch. Flow from Bennett Spring averages approximately 100 million gallons per day, and the branch doubles the flow of the NR. The spring and the branch below it are owned by the MDNR and managed as a state park. The MDC owns and operates a trout hatchery within the park, and rainbow and brown trout are stocked annually in the park and the NR (see the Introduced and Exotic Species section). From March through October, the trout park is open daily and the trout fishery is managed on a put-and-take basis. There is no length limit on rainbow trout, and the daily limit is five. The spring branch is separated into three zones, each with different lure restrictions (flies, artificials without soft plastic or synthetic substances, and bait or soft plastic/synthetic substance lures). From the second weekend in November through the second weekend in February the park is open on Fridays, Saturdays, and Sundays. The fall/winter season is catch and release and only flies and artificial lures without soft plastic or synthetic substances may be used. The MDNR reported that in 1997 approximately 188,000 trout tags were sold including 2,200 during the fall/winter season.

Since January 1996, the trout fishery in the NR and its tributaries, including Bennett Spring Branch and the trout park, has been managed under an 18" minimum length limit for brown trout. The regulation also places a daily limit of five trout in the Niangua Watershed, and only one may be a brown trout. Brown trout will be stocked annually in the NR downstream from Bennett Spring Branch to establish and maintain a quality brown trout fishery (Table 27).

Lake of the Ozarks

Most of the information included in this section was obtained from the Lake of the Ozarks Fisheries Management Plan (Stoner, 1999), which can be consulted for more details. In January 1976, a minimum length limit of 15" was imposed on all black bass species in a successful attempt to increase overall bass densities, increase catch rates of bass of all sizes, and to more effectively utilize the existing food supply. As a result, the CPUE of largemouth bass over 12" doubled during the first year in electrofishing samples. The average growth rate of largemouth bass has remained stable since the regulation went into effect, and the legal catch and harvest rates for black bass on the Niangua arm have remained stable since 1987. In 1988, the catch rate for largemouth bass (0.61 fish/hour) on LOZ was second only to Table Rock Lake among Missouri reservoirs (Weithman, 1991).

Two crappie regulations were enacted during the 1980s based on trapnetting conducted by MDC Fisheries Research (Colvin and Vasey, 1986). These included a daily and possession limit of 15 crappie in 1984, and a 9" minimum length limit in 1989. Recent trapnet and angler data indicate that following the 9" regulation, survival increased for age-one plus and age-two plus crappie.

Catfish have been the 3rd or 4th most popular fish as a group on the Niangua Arm since 1981. However,

Table 27. Trout sampling results from the Niangua River in 1995 and 1996.

	Brown Trout			Rainbow Trout		
Parameter	1995	1996 (Summer)	1996 (Fall)	1995	1996 (Summer)	1996 (Fall)
N	3	91	219	30	26	92
Effort (hours)	3.2	13.6	13.6	3.2	18.6	13.6
N<11 inches (TL)	3	17	157	9	2	32
N>11 inches (TL)	0.0	74	62	21	24	60
PSD (15)	0.0	1.4	25.8	4.8	4.2	1.7
RSD (20)	0.0	0.0	0.0	0.0	0.0	0.0
Wr (average)	86.1	105.1	83.7	97.3	100.1	93.7

N = Number collected.

TL = Total length from tip of snout to tip of tail.

PSD (15) = Proportional Stock Density - The percentage of sample fish greater than or equal to the minimum stock length that were greater than or equal to 15 inches in total length.

RSD (20) = Relative Stock Density - The percentage of sample fish greater than or equal to the minimum stock length that were greater than or equal to 20 inches in total length.

Wr = Index of condition or relative weight (Wr) -index that compares the actual weight (W) of a fish with a standard weight (Ws) of a given length.

Table 29. Fish stocked in the Niangua River and Lake of the Ozarks.

Species	Years	Number (size)	Location
Hybrid striped bass	1982-83	20,000 (2")	LOZ
	1985-87	176,500 (2")	LOZ
	1988[1]	133,000 (2")	LOZ
	1989[2]	115,000 (2")	LOZ
	1990[3]	117,700 (2")	LOZ
	1991-96	615,900 (1-5")	LOZ
Paddlefish	1982-88	111,800 (10-14")	LOZ
	1989	10,100 (12-19")	LOZ
	1990-1994	39,000 (10-14")	LOZ
	1995	10,100 (10-14")	LOZ
Striped bass	1967-74	819,000 (2")	LOZ
	1976-79	308,000 (2")	LOZ
	1980-85	958,000 (2")	LOZ
	1986	1,000 (6")	LOZ
	1990,93,95	339,300 (2")	LOZ
Walleye	1985-86	176,000 (2-4")	LOZ
	1991	1,117,300 (fry-5")	LOZ
	1992-96	3,224,000 (fry-4")	LOZ
Blue catfish	1991,95	2,800 (13"+)	LOZ

Threadfin shad	**1975,80,81,83**	**70,000 (adults)**	**LOZ**
Muskellunge	**1967,68**	**225 (N/A)**	**LOZ**
Largemouth bass	**1950's**	**N/A (12")**	**LOZ**
Rainbow trout	**1981-94**	**140,000 (12")**	**Niangua River[4]**
	1995	**8,000 (12")**	**Niangua River[5]**
Brown trout	**1995**	**2,100 (9")**	**Niangua River[6]**
	1996	**7,500 (9")**	**Niangua River[7]**

[1] 6,300 marked with OTC (oxytetracycline).
[2] 10,200 marked with OTC
[3] 27,800 marked with OTC. stock NRO to WG.
[4] 85% at Bennett Access (BA), 7% float stock BA to Winchester Gap (WG), 8% at WG Campground, 4.6% float stock NRO to WG.
[5] 87.5% at Bennett Access (BA), 7.8% float stock BAto NRO Campground, 4.6% float
[6] Float stock NRO to 0.5 miles up from Prosperine Access (PA)
[7] Float stock 0.5 miles up from NRO to 0.5 miles up from PA.

fishing effort for catfish declined to less than 4 hours/acre in 1992 and 1993, compared to an average of 10 hours/acre in the early- to mid-1980's. Harvest and catch rates, along with average size harvested, remained stable during this period. Efforts to manage catfish have been hampered by lack of effective sampling methods.

The walleye fishery in LOZ declined after Truman Dam was closed in 1977. A six-year tagging study initiated in 1977 revealed that the majority of LOZ spawning walleye concentrate in the Truman Dam tailwater area in the spring. No other significant spawning runs are known to exist, and spawning below the dam is probably not very successful due to erratic water releases. Since minimum flows have been maintained below Tunnel Dam, increasing numbers of walleye have been observed there.

In 1991, MDC Fisheries Research initiated a study of white bass population dynamics in the Niangua Arm and Pomme de Terre Lake. In 1992, white bass were the most sought after species with angler effort at 18.2 hours per acre. Tagging studies of fish larger or equal to 11 inches conducted between 1992 and 1995 indicate that approximately 25% of the fish tagged in the spring on the Niangua Arm are caught during that same calendar year. Initially, many tag returns came from the spawning area immediately upstream from the LOZ border.

Striped bass were first stocked in the lake in 1967 to provide a unique trophy fishery and to utilize the surplus of large gizzard shad. A 20-inch minimum length limit and a daily limit of four went into effect in 1978, a daily limit of 15 *Morone* sp. in the aggregate with only four greater than or equal to 18 inches was enacted in 1987. The plume of cool water from Ha Ha Tonka Spring provides the desired thermal refuge for this species and has been a popular fishing location. Although the harvest of striped bass has remained low, a number of trophy size fish have been caught.

Hybrid striped bass were first stocked in LOZ in 1982 (Table 29), although fish entered LOZ prior to that time from stockings at Montrose Lake. In recent years, MDC has concentrated stocking efforts on hybrid striped bass rather than striped bass due to their better hatchery survival and higher angler catch. Notable hybrid fisheries have developed near Ha Ha Tonka Spring on the Niangua Arm, and near the lake boundary in the Niangua Arm during April and May.

Paddlefish were listed as sportfish in 1968, with a statewide 45-day spring season in 1979, and a statewide 24-inch (eye-to-fork of tail) minimum length limit in 1987. Beginning in 1992, paddlefish caught by sportfishing methods could not be possessed on waters of the state except during the spring snagging season. Since 1982 paddlefish have been annually stocked LOZ (Table 40). Paddlefish still attempt to make a spawning run up the Osage Arm of LOZ, but are unable to reach their historical spawning ground which has been inundated by Truman Lake. Some paddlefish were observed in the Niangua River in April of 1988 and 1994 during high water. High water conditions must persist for several days to promote a successful spawn, and an extensive stretch of open river is required for larval survival. Apparently, the stretch of Niangua River between Tunnel Dam and LOZ does not meet these conditions as there has been no documented recruitment in the Niangua River.

Sport Fisheries on Lake Niangua

The Tunnel Dam area is a popular recreational site for angling, canoeing, and swimming. During the spring spawning runs and on summer nights, anglers can be found fishing below the dam, along the bypass reach, and at the powerhouse. Few anglers fish Lake Niangua, but use is expected to increase since improved access was provided in 1995. Several conditions of the recently approved FERC

relicensing agreement will benefit recreational users and water quality. These conditions include: 1) A recreational access facility will be provided in the bypass reach on the NR, immediately below the dam; 2) Vehicles will be allowed access to the powerhouse boat ramp; 3) Directional and informational signs will be installed from the nearest paved roads to access facilities at Lake Niangua, the bypass reach, and the powerhouse; 4) One hundred-foot riparian zones will be protected, and all wetland timber and all shallow water habitat on Tunnel Dam project land will be protected; 5) Two year-long recreational use studies will be conducted, one 10 years after relicensing, and another 20 years after, to assess use of the reservoir and bypass reach. The first two of these conditions have been fulfilled.

Pond Fisheries

Many of the public use areas within the watershed have small ponds that offer fishing opportunities. Charity Access in southern Dallas County has one 0.4 acre fishing pond containing channel catfish, largemouth bass, bluegill, and green sunfish. The pond receives moderate fishing and frogging pressure. Branch Towersite in southwestern Camden County has a 0.25 acre fishing pond containing largemouth bass, bluegill, channel catfish and green sunfish. Access to the pond is available by trail. There are two fishable ponds on Gale CA in central Camden County. One is 0.5 acre, shallow, and contains bluegill and green sunfish. The other is 0.25 acre and contains hybrid bluegill, channel catfish, and largemouth bass. Three fishable ponds approximately 0.23 acre on Fiery Fork CA contain bluegill and green sunfish and largemouth bass.